

## Entire list of publications of Martin Hof (126 appeared; 12/2010)

### Overview:

- 104 Articles in impacted Journals
- 2 Articles in non-impacted Journals
- 4 Articles in Conference Proceedings listed in Web of Science
- 13 Chapters in Books
- 2 Edited Books
- 1 Patent

(articles in press, conference abstracts, editorials, and news items are not listed)

### Appeared Publications:

- 1) Humpolíčková, J. - Benda, A. - Macháň, R. - Enderlein, J. - Hof, M. *Dynamic saturation optical microscopy: employing dark-state formation kinetics for resolution enhancement.* (2010), Physical Chemistry Chemical Physics 12, 12457-12465.
- 2) Huranova, M. - Ivani, I. - Benda, A. - Poser, I. - Brody, Y. - Hof, M. - Shav-Tal, Y. - Neugebauer, K. - Stanek D. *The differential interaction of snRNPs with pre-mRNA reveals splicing kinetics in living cells.* (2010), Journal of Cell Biology 191, 75-86.
- 3) Barucha-Kraszewska, J. - Kraszewski, S. - Jurkiewicz, P. - Ramseyer, Ch. - Hof, M. *Numerical studies of the membrane fluorescent dyes dynamics in ground and excited states.* (2010), Biochimica Et Biophysica Acta-Biomembranes 1798, 1724-1734.
- 4) Beranová, L. - Cwiklik, L. - Jurkiewicz, P. - Hof, M. - Jungwirth, P. *Oxidation Changes Physical Properties of Phospholipid Bilayers: Fluorescence Spectroscopy and Molecular Simulations.* (2010), Langmuir 26, 6140-6144.
- 5) Mosinger, J. - Lang, K. - Hostomský, J. - Franc, J. - Sýkora, J. - Hof, M. - Kubát, P. *Singlet Oxygen Imaging in Polymeric Nanofibers by Delayed Fluorescence.* Journal of Physical Chemistry B. 114, 48 (2010), s. 15773-15779.
- 6) Kral, T. - Leblond, J. - Hof, M. - Scherman, D. - Hersovici, J. - Mignet, N. *Lipopolythiourea/DNA interaction: A biophysical study.* (2010), Biophysical Chemistry 148, 68-73, ISSN 0301-4622.

- 7) Hovorka, O. - Šubr, V. - Větvička, D. - Kovář, L. - Strohalm, J. - Strohalm, M. - Benda, A. - Hof, M. - Ulbrich, K. - Říhová, B. *Spectral analysis of doxorubicin accumulation and the indirect quantification of its DNA intercalation.* European Journal of Pharmaceutics and Biopharmaceutics. 76 - (2010), s. 514-524.
- 8) Kulakowska-Zań, A. - Jurkiewicz, P. - Sýkora, J. - Benda, A. - Mely, Y. - Hof, M. *Fluorescence Lifetime Tuning-A Novel Approach to Study Flip-Flop Kinetics in Supported Phospholipid Bilayers.* (2010), Journal of Fluorescence 20, 563-569.
- 9) Macháň, R. - Hof, M. *Lipid diffusion in planar membranes investigated by fluorescence correlation spectroscopy.* (2010), Biochimica Et Biophysica Acta-Biomembranes 1798, 1377-1391.
- 10) Macháň, R. - Miszta, A. - Hermens, W. - Hof, M. *Real-time monitoring of melittin-induced pore and tubule formation from supported lipid bilayers and its physiological relevance.* (2010), Chemistry and Physics of Lipids 163, 200-206.
- 11) Prochazka, K. - Matejcek, P. - Stepanek, M. - Limpouchova, Z. - Hof, M. - Humpolickova, J. - Sachl, R. - Schroeder, J. *Solvent relaxation studies applied to stimuli-responsive core-shell nanoparticles.* (2010), Proceedings of SPIE, 7571.
- 12) Macháň, R. - Hof, M. *Recent Developments in Fluorescence Correlation Spectroscopy for Diffusion Measurements in Planar Lipid Membranes.* (2010), International Journal of Molecular Sciences 11, 427-457, ISSN 1422-0067.
- 13) Miszta, A. - Macháň, R. - Hermens, W. Th. - Hof, M. *Peptide-Membrane Interactions Studied by Ellipsometry, Laser Scanning Microscopy, and Z-Scan Fluorescence Correlation Spectroscopy. Membrane Active Peptides. Methods and Results on Structure and Function.* (2010), ed. Castanho, M., La Jolla: International University Line, 219-245, ISBN 978-0-9720774-5-3.
- 14) Uchman, M. - Jurkiewicz, P. - Cigler, P. - Grüner, Bohumír - Hof, M. - Procházka, K. - Matějčík, P. *Interaction of Fluorescently Substituted Metallacarboranes with Cyclodextrins and Phospholipid Bilayers: Fluorescence and Light Scattering Study.* (2010), Langmuir 26, 6268-6275.
- 15) Vácha, R. - Jurkiewicz, P. - Petrov, M. - Berkowitz, M. L. - Böckmann, R. A. - Barucha-Kraszewska, J. - Hof, M. - Jungwirth, P. *Mechanism of Interaction of Monovalent Ions with Phosphatidylcholine Lipid Membranes.* (2010), Journal of Physical Chemistry B 114, 9504-9509.
- 16) Jesenská, A. - Sýkora, J. - Olžyňská, A. - Brezovský, J. - Zdráhal, Z. - Damborský, J. - Hof, M. *Nanosecond Time-Dependent Stokes Shift at the Tunnel Mouth of Haloalkane Dehalogenases.* (2009), Journal of the American Chemical Society 131, 494-501.
- 17) Beranová, L. - Humpolíčková, J. - Hof, M. *Fluorescenční korelační spektrometrie.* (2009), Chemické listy 103, 125-129.
- 18) Blanco-Rodríguez, A. M. - Busby, M. - Ronayne, K. L. - Towrie, M. - Grădinaru, C. - Sudhamsu, J. - Sýkora, J. - Hof, M. - Záliš, S. - Di Billio, A. J. - Crane, B. R. - Gray, H. B. - Vlček Jr., A. *Relaxation Dynamics of Pseudomonas aeruginosa Rel(CO)3(alpha.-diimine)(HisX)+ (X = 83, 107, 109, 124, 126) CuII Azurins.* (2009), Journal of the American Chemical Society 131, 11788-800.

- 19) Humpolíčková, J. - Benda, A. - Beranová, L. - Hof, M. *Compaction mechanism of intermediate-sized DNA elucidated by fluorescence lifetime correlation spectroscopy.* (2009), *Chemické listy* 103, 911-914.
- 20) Huranová, M. - Jablonski, J.A. - Benda, A. - Hof, M. - Staněk, David - Caputi, M. *In vivo detection of RNA-binding protein interactions with cognate RNA sequences by fluorescence resonance energy transfer.* (2009), *R N A* 15, 2063-2071.
- 21) Kubát, P. - Lang, K. - Janda, P. - Frank, O. - Matulková, I. - Sýkora, J. - Civiš, S. - Hof, M. - Kavan, L. *Self-Assemblies of Cationic Porphyrins with Functionalized Water-Soluble Single-Walled Carbon Nanotubes.* (2009), *Journal of Nanoscience and Nanotechnology* 9, 5795-5802.
- 22) Mosinger, J. - Lang, K. - Kubát, P. - Sýkora, J. - Hof, M. - Plíštil, J. - Mosinger, B. *Photofunctional polyurethane nanofabrics doped by zinc tetraphenylporphyrin and zinc phthalocyanine photosensitizers.* (2009), *Journal of Fluorescence* 19, 705-713.
- 23) Olžýnska, A. - Jurkiewicz, P. - Hof, M. *Fluorescence solvent relaxation in cationic membranes.* (2009), 'Reviews in Fluorescence. Annual volumes 2007', ed. Geddes, C., Springer, 119-139, ISBN 978-0-387-88721-0.
- 24) Procházka, K. - Matějček, P. - Uchman, M. - Štěpánek, M. - Humpolíčková, J. - Hof, M. - Špírková, M. *pH-Dependent Behavior of Hydrophobically Modified Polyelectrolyte Shells of Polymeric Nanoparticles.* (2009), *Macromolecular Symposia* 273, 95-102.
- 25) Sýkora, J. - Bouřová, L. - Hof, M. - Svoboda, P. *The effect of detergents on trimeric G-protein activity in isolated plasma membranes from rat brain cortex: Correlation with studies of DPH and Laurdan fluorescence.* (2009), *Biochimica Et Biophysica Acta-Biomembranes* 1788, 324-332.
- 26) Šachl, R. - Mikhalyov, I. - Hof, M. - Johansson, L. B. A. *A comparative study on ganglioside micelles using electronic energy transfer, fluorescence correlation spectroscopy and light scattering techniques.* (2009), *Physical Chemistry Chemical Physics* 11, 4335-4343.
- 27) Štefl, M. - Kulakowska-Zań, A. - Hof, M. *Simultaneous Characterization of Lateral Lipid and Prothrombin Diffusion Coefficients by Z-Scan Fluorescence Correlation Spectroscopy.* (2009), *Biophysical Journal* 97, L01-L04.
- 28) Vácha, R. - Siu, S. W. I. - Petrov, M. - Böckmann, R. A. - Barucha-Kraszewska, J. - Jurkiewicz, P. - Hof, M. - Berkowitz, M. L. - Jungwirth, P. *Effects of alkali cations and halide anions on the DOPC lipid membrane.* (2009), *Journal of Physical Chemistry A* 113, 7235-7243.
- 29) Blanco-Rodríguez, A. M. - Ronayne, K. L. - Záliš, S. - Sýkora, J. - Hof, M. - Vlček Jr., A. *Solvation-driven excited-state dynamics of [Re(4-Et-Pyridine)(CO)(3)(2,2'-bipyridine)](+) in imidazolium ionic liquids. A time-resolved infrared and phosphorescence study.* (2008), *Journal of Physical Chemistry A* 112, 3506-3514.
- 30) Humpolíčková, J. - Benda, A. - Sýkora, J. - Macháň, R. - Kral, T. - Gasinska, B. - Enderlain, J. - Hof, M. *Equilibrium dynamics of spermine-induced plasmid DNA condensation revealed by fluorescence lifetime correlation spectroscopy.* (2008), *Biophysical Journal* 94, L17-L19.
- 31) Humpolíčková, J. - Beranová, L. - Štěpánek, M. - Benda, A. - Procházka, K. - Hof, M. *Fluorescence Lifetime Correlation Spectroscopy Reveals Compaction Mechanism of 10 and 49 kbp DNA and Differences between Polycation and Cationic Surfactant.* (2008), *Journal of Physical Chemistry B* 112, 16823-16829.

- 32) Humpolíčková, J. - Štěpánek, M. - Kral, T. - Benda, A. - Procházka, K. - Hof, M. *On mechanism of intermediate-sized circular DNA compaction mediated by spermine: Contribution of fluorescence lifetime correlation spectroscopy.* (2008), *Journal of Fluorescence* 18, 679-684.
- 33) Jurkiewicz, P. - Koňák, Č. - Šubr, V. - Hof, M. - Štěpánek, P. - Ulbrich, K. *Investigation of nanoparticle coating by fluorescence correlation spectroscopy.* (2008), *Macromolecular Chemistry and Physics* 209, 1447-1453.
- 34) Kubát, P. - Lang, K. - Lhoták, P. - Janda, P. - Sýkora, J. - Matějček, P. - Hof, M. - Procházka, K. - Zelinger, Z. *Porphyrin/calixarene self-assemblies in aqueous solution.* (2008), *Journal of Photochemistry and Photobiology A: Chemistry* 198, 18-25.
- 35) Lang, K. - Kubát, P. - Mosinger, J. - Bujdák, J. - Hof, M. - Janda, P. - Sýkora, J. - Iyi, N. *Photoactive oriented films of layered double hydroxides.* (2008), *Physical Chemistry Chemical Physics* 10, 4429-4434.
- 36) Miszta, A. - van Deursen, B. - Schoufs, R. - Hof, M. - Hermens, W. Th. *Absence of ethanol-induced interdigitation in supported phospholipid bilayers on silica surfaces.* (2008), *Langmuir* 24, 19-21.
- 37) Miszta, A. - Macháň, R. - Benda, A. - Ouellette, A. J. - Hermens, W. Th. - Hof, M. *Combination of ellipsometry, laser scanning microscopy and Z-scan fluorescence correlation spectroscopy elucidating interaction of cryptdin-4 with supported phospholipid bilayers.* (2008), *Journal of Peptide Science* 14, 503-509.
- 38) Olžyńska, A. - Jurkiewicz, P. - Hof, M. *Properties of mixed cationic membranes studied by fluorescence solvent relaxation.* (2008), *Journal of Fluorescence* 18, 925-928.
- 39) Šachl, R. - Štěpánek, M. - Procházka, K. - Humpolíčková, J. - Hof, M. *Fluorescence study of the solvation of fluorescent probes prodan and laurdan in poly(epsilon-caprolactone)-block-poly(ethylene oxide) vesicles in aqueous solutions with tetrahydrofuran.* (2008), *Langmuir* 24, 288-295.
- 40) Valenta, J. - Fučíková, A. - Vácha, F. - A.ec, F. - Humpolíčková, J. - Hof, M. - Pelant, I. - Kůsová, K. - Dohnalová, K. - Linnros, J. *Light-emission performance of silicon nanocrystals deduced from single quantum dot spectroscopy.* (2008), *Advanced Functional Materials* 18, 2666-2672.
- 41) Adjimatera, N. - Benda, A. - Blagbrough, I. S. - Langner, M. - Hof, M. - Kral, T. *Fluorescence correlation spectroscopic studies of a single lipopolyamine-DNA nanoparticle. Fluorescence of supermolecules, polymers, and nanosystems.* (2007), 'Springer Series on Fluorescence. 04', ed. Wolfbeis, O., Heidelberg: Springer, 381-413, ISBN 978-3-540-73927-2.
- 42) A. Olžyńska, A. Zan, Jurkiewicz, P., Sýkora J., Groebner, G., M. Langner, M. Hof. *Molecular interpretation of fluorescence solvent relaxation of Patman and 2H NMR experiments in phosphatidylcholine bilayers.* (2007), *Chem. Phys. Lipids* 147, 69-77.
- 43) Sýkora J., Slavíček P., Jungwirth P., Barucha J., Hof M. *Time-Dependent Stokes Shifts of Fluorescent Dyes in the Hydrophobic Backbone Region of a Phospholipid Bilayer: Combination of Fluorescence Spectroscopy and Ab Initio Calculations.* (2007), *Journal of Physical Chemistry B* 111, 5868-5877.
- 44) Rieber, J. Sýkora, A. Olžyńska, R. Jelinek, G. Cevc, M. Hof. *The use of solvent relaxation technique to investigate headgroup hydration and protein binding of simple and mixed phosphatidylcholine/surfactant bilayer membranes.* (2007), *Biochim. Biophys. Acta* 1768, 1050-1058.

- 45) Hohlbein, J.; Steinhart, M.; Schiene-Fischer, C.; Benda, A.; Hof, M.; Hübner, G. Confined diffusion in ordered nanoporous alumina membranes. (2007), *Small* 3, 380-385.
- 46) Stasiuk, M. - Bartosiewicz, D. - Gubernator, J. - Cieslik-Boczula, K. - Hof, M. - Kozubek, A. *A semisynthetic 5-n-alkylresoreinol derivative and its effect upon biomembrane properties.* (2007), *Zeitschrift fuer Naturforschung. Section C: a Journal of Biosciences* 62, 881-888.
- 47) Kapusta, P. - Wahl, M. - Benda, A. - Hof, M. - Enderlein, J. *Fluorescence lifetime correlation spectroscopy.* (2007), *Journal of Fluorescence* 17, 43-48.
- 48) Jurkiewicz, P., A. Olżyńska, M. Langner, M. Hof. *Headgroup Hydration and Mobility of DOTAP/DOPC Bilayers: A Fluorescence Solvent Relaxation Study.* (2006), *Langmuir* 22, 8741-8749.
- 49) Hoffmanova H., Hof M., Krtil P. *Potential controlled adsorption and lateral mobility of DOPC on polycrystalline gold - an EQCM and fluorescence microscopy study.* *Journal of Electroanalytical Chemistry*, 588, 296-302.
- 50) T. Kral, M. Langner, M. Hof. *DNA-spermine and DNA-lipid aggregate formation visualized by Fluorescence Correlation Spectroscopy.* (2006), *Chemotherapy* 52, 196-199.
- 51) Adjimatera, N. - Kral, T. - Hof, M. - Blagbrough, I. S. *Lipopolyamine-mediated single nanoparticle formation of calf thymus DNA analyzed by fluorescence correlation spectroscopy.* (2006), *Pharmaceutical Research*. 23, 1564-1573.
- 52) M. Przybylo, J. Sýkora, J. Humpolíčková, A. Benda, A. Zan, M. Hof. *The lipid diffusion in giant unilamellar vesicles is more than two times faster than in supported phospholipid bilayers under identical conditions.* (2006), *Langmuir* 22, 9096-9099.
- 53) T. Dertinger, I. von der Hocht, A. Benda, M. Hof, J. Enderlein. *Surface sticking and lateral diffusion of lipids in supported bilayers.* (2006), *Langmuir* 22, 9339-9344.
- 54) Humpolíčková J., Gielen E., Benda A., Fagulova V., Vercaemmen J., Vandeven M., Hof M., Ameloot M., Engelborghs Y. *Probing diffusion laws within cellular membranes by Z-scan fluorescence correlation spectroscopy.* (2006), *Biophysical Journal* 91, L23-25.
- 55) A. Benda, V. Fagulová, A. Deyneka, J. Enderlein and M. Hof. *Fluorescence Lifetime Correlation Spectroscopy Combined with Lifetime Tuning: New Perspectives in Supported Phospholipid Bilayer Research.* (2006), *Langmuir* 22, 9580-9585.
- 56) Kral, T. - Benda, A. - Hof, M. - Langner, M. *Some aspects of DNA condensation observed by fluorescence correlation spectroscopy.* (2006), 'Review in *Fluorescence 2005*', ed. Geddes, C.; Lakowicz, J., Springer, 1-17, ISBN 0-387-23628-7
- 57) Kral T., Widerak K., Langner M., Hof M. *Propidium Iodide and PicoGreen as Dyes for the DNA Fluorescence Correlation Spectroscopy Measurements.* (2005), *J. Fluor.* 15, 179-183.
- 58) Benda A., Hof M., Wahl M., Patting M., Erdmann R., Kapusta P. *TCSPC Upgrade of Confocal FCS Microscope.* (2005), *Rev. Sci. Instrum* 76, 033106.

- 59) Dertinger T., Koberling F., Benda A., Erdmann R., Hof M., Enderlein J. *Advanced Multi-Focus Confocal Laser Scanning Microscope for Single Molecule Studies*. (2005), Proceedings of SPIE, 5699, 219-226.
- 60) Hof M., Kral T., Langner M., Adjimatera N., Blagbrough I. S. *DNA condensation characterised by Fluorescence Correlation Spectroscopy*. (2005), Cell. Mol. Biol. Lett. 10(S), 23-25.
- 61) Gielen E., Vercammen J., Sýkora J., Humpolíčková J., VandeVen M., Benda A., Hellings, M., Hof, M., Engelborghs, Y., Steels, P., Ameloot, M. *Diffusion of sphingomyelin and oligodendrocyte protein in the membrane of OLN-93 oligodendroglial cells studied by fluorescence correlation spectroscopy*. (2005), Comptes Rendus Biologies, 328, 12, 1057-1064.
- 62) Sýkora, J. - Jurkiewicz, P. - Epand, R. M. - Kraayenhof, R. - Langner, M. - Hof, M. *Influence of the curvature on the water structure in the headgroup region of phospholipid bilayer studied by the solvent relaxation technique*. (2005), Chemistry and Physics of Lipids. 135, 213-221.
- 63) Humpolíčková J., Štěpánek M., Procházka K., and Hof M. *Solvent relaxation study of pH-dependent hydration of poly(oxyethylene) shells in polystyrene-block-poly(2-vinylpyridine)-block-poly(oxyethylene) micelles in aqueous solutions*. (2005), Journal of Physical Chemistry A 109, 10803-10812.
- 64) P. Jurkiewicz, J. Sýkora, A. Olżyńska, J. Humpolíčková, M. Hof. *Solvent Relaxation in Phospholipid Bilayers: Principles and Recent Applications*. (2005), J. Fluor. 15, 883-894.
- 65) Hof, M. - Benda, A. - Sýkora, J. *Fluorescenční korelační spektroskopie a její nové aplikace v biologických vědách*. (2005), Československý časopis pro fyziku 55, 617-620.
- 66) Hof, M. (ed.) - Hutterer, R. (ed.) - Fidler, V. (ed.) *Fluorescence Spectroscopy in Biology. Advanced Methods and their Applications to Membranes, Proteins, DNA, and Cells*. (2004), 'Springer Series on Fluorescence, 3', Heidelberg: Springer, 290, ISBN 3-540-22338-X
- 67) Hof, M. - Fidler, V. - Hutterer, R. *Basics of Fluorescence Spectroscopy in Bio-sciences. Fluorescence Spectroscopy in Biology. Advanced Methods and their Applications to Membranes, Proteins, DNA, and Cells*. (2004), ed. Hof, M.; Hutterer, R.; Fidler, V., Heidelberg: Springer, 3-29, ISBN 3-540-22338-X
- 68) Sýkora, J. - Hutterer, R. - Hof, M. *Solvent Relaxation as a Tool for Probing Micro-Polarity and -Fluidity. Fluorescence Spectroscopy in Biology. Advanced Methods and their Applications to Membranes, Proteins, DNA, and Cells*. (2004), ed. Hof, M.; Hutterer, R.; Fidler, V., Heidelberg: Springer, 71-78, ISBN 3-540-22338-X
- 69) Beneš M., Billy D., Benda A., Speijer H., Hof M., Hermens W. T. *Surface-dependent Transitions during Self-assembly of Phospholipid Membranes on Mica, Silica and Glass*. (2004), Langmuir 20, 10129-10137.
- 70) Fidler, V. (ed.) - Hof, M. (ed.) - Šiňor, M. (ed.) *Methods and Applications of Fluorescence*. (2003), 'Book of Abstracts.', Praha, 322, ISBN 80-01-02801-1.
- 71) Hof, M. *Basics of Optical Spectroscopy. Chapter 3. Handbook of Spectroscopy*. (2003), ed. Günter, G.; Tuan, V., Weinheim: WileyVCH, 39-47.
- 72) Sablinkas, V. - Steiner, G. - Hof, M. *Applications of Optical Spectroscopy. Chapter 6. Handbook of Spectroscopy*. (2003), ed. Günter, G.; Tuan, V., Weinheim: WileyVCH, 89-168.

- 73) Sheynis T., Sýkora J., Benda A., Kolusheva S., Hof M., Jelinek R. *Bilayer Localization of Membrane-Active Peptides Studied in Biomimetic Vesicles by Visible and Fluorescence Spectroscopies*. (2003), *Eur. J. Biochem.* 270, 4478-4487.
- 74) A.Benda, M.Beneš, V. Mareček, A.Lhotský, W.Th.Hermens & M.Hof. *How to Determine Diffusion Coefficients in Planar Phospholipid Systems by Confocal Fluorescence Correlation Spectroscopy*. (2003), *Langmuir* 19, 4120-4126.
- 75) Jurkiewicz P., Okruszek A., Hof M., Langner M. *Associating Oligonucleotides with Positively Charged Liposomes*. (2003), *Cell. Mol. Biol. Lett.*, 8, 77-84 (2003).
- 76) Humpolíčková J., Procházka K., Hof M., Tuzar Z., Špírková M. *Fluorescence Correlation Spectroscopy Using Octadecylrhodamine B as a Specific Micelle-Binding Fluorescent Tag, Light Scattering and Tapping Mode Atomic Force Microscopy Studies of Amphiphilic Water-Soluble Block Copolymer Micelles*. (2003), *Langmuir* 19, 4111-4119.
- 77) Jelínek K., Uhlík F., Limpouchová Z., Matějčík P., Humpolíčková J., Procházka K., Tuzar Z., Špírková M., Hof M. *Amphiphilic Block Copolymer Micelles with Hydrophobically Modified Shells*. (2003), *Mol. Simul.* 29, 655-660.
- 78) Matějčík P., Humpolíčková J., Procházka K., Tuzar Z., Špírková M., Hof M., Webber S. E. *Hybrid Block Copolymer Micelles with Partly Hydrophobically Modified Polyelectrolyte Shells in Polar and Aqueous Media. Experimental Study Using Fluorescence Correlation Spectroscopy, Time-Resolved Fluorescence, Light Scattering and Atomic Force Microscopy*. (2003), *J. Phys. Chem. B* 107, 8232-8240.
- 79) Humpolíčková J., Procházka K., Hof M. *Octadecylrhodamine B as A Specific Micelle-Binding Fluorescent Tag for Fluorescence Correlation Spectroscopy Studies of Amphiphilic Water-Soluble Block Copolymer Micelles. Spectroscopic Behavior in Aqueous Media*. (2003), *Collect. Czech. Chem. Commun.* 68, 2105-2119.
- 80) Štěpánek M., Humpolíčková J., Procházka K., Hof M., Tuzar Z., Špírková M., Wolff T. *Light Scattering, Atomic Force Microscopy and Fluorescence Correlation Spectroscopy Studies of Polystyrene-block-poly(2-vinylpyridine)-block-poly(ethylene oxide) Micelles*. (2003), *Collect. Czech. Chem. Commun.* 68, 2120-2138.
- 81) R. Hutterer & M. Hof. *Probing ethanol-induced phospholipid phase transitions by the polarity sensitive fluorescence probes*. (2002), *Z. Phys. Chem.* 216, 333-346.
- 82) J. Sýkora, P. Kapusta, V. Fidler, & M. Hof. *On What Time-Scale Does Solvent Relaxation in Phospholipid Bilayers Happen?* (2002), *Langmuir*, 18, 571-574.
- 83) J. Sýkora & M. Hof *Solvent Relaxation in Phospholipid Bilayers: Physical Understanding and Biophysical Applications*. (2002), *Cell. Mol. Biol. Lett.* 7, 259-261.
- 84) J. Sýkora, V. Mudogo, R. Hutterer, M. Nepraš, J. Vaněrka, P. Kapusta, V. Fidler, & M. Hof. *ABA-C<sub>15</sub>: A New Dye for Probing Solvent Relaxation in Phospholipid Bilayers*. (2002), *Langmuir* 18, 9276-9282.
- 85) T. Kral, M. Langner, M. Beneš, D. Baczynska, M. Ugorski & M. Hof. *The application of Fluorescence Correlation Spectroscopy in Detecting DNA Condensation*. (2002), *Biophys. Chem.* 95, 135-144.

- 86) T. Kral, M. Hof, P. Jurkiewicz & M. Langner *Fluorescence Correlation Spectroscopy (FCS) as a tool to study DNA Condensation with hexadecyltrimethylammonium bromide (HTAB)*. (2002), Cell. Mol. Biol. Lett. 7, 203-211.
- 87) T. Kral, M. Hof, & M. Langner. *Effect of Spermine on the Plasmide Condensation and Dye Release Observed by Fluorescence Correlation Spectroscopy*. (2002), Biol. Chem. 383, 331-335.
- 88) M. Beneš, W. T. Hermens & M. Hof. *Muscovite Allows for the Characterisation of Supported Bilayers by Confocal Fluorescence Correlation Spectroscopy*. (2002), Biol. Chem. 383, 337-341.
- 89) Hutterer, R. - Hof, M. *Fluorescence Approaches for the Characterisation of the Peripheral Membrane Binding of Proteins Applied for the Blood Coagulation Protein Prothrombin. Fluorescence Spectroscopy, Imaging and Probes*. (2002), ed. Kraayenhof, R.; Visser, A.; Gerritsen, H., Weinheim: Springer, 225-239. (Springer Series on Fluorescence.).
- 90) A. Häfner, F. Mérola, G. Duportail, F. W. Schneider, M. Hof. *Time-resolved tryptophan fluorescence of factor X fragment 1-86 and the influence of membrane binding*. (2002), Collect. Czech. Chem. Comm. 67, 1872-1882.
- 91) Hutterer, R. - Hof, M. *Membrane Binding of Peripheral Proteins and its Characterisation Applying Fluorescence Methods. Recent Research Developments in Proteins*. (2002), ed. Pandalai, S., Trivandrum: Transworld Research Network, 277-288, ISBN 81-7895-063-4
- 92) Steiner, G. - Salzer, R. - Hof, M. - Beneš, M. *Verfahren und Vorrichtung zur Fluoreszenzkorrelationspektroskopie, insbesondere zur Verstärkung der Fluoreszenzintensität. [Method and Construct for Intesifying the Fluorescence Emission in Fluorescence Correlation Spectroscopy.]*. 20001221. Datum udělení patentu: 20010320. - s. 100 580 577.9-52
- 93) R. Hutterer & M. Hof. *Dynamics in Diether Lipid Bilayers and Interdigitated Bilayer Structures Studied by Time-Resolved Emission Spectra, Decay Time and Anisotropy Profiles*. (2001), J. Fluor. 11, 227-236.
- 94) Hutterer, R. - Hof, M. *Anthroyloxy Fatty Acids: a Unique Set of Fluorescent Probes for the Investigation of Membrane Structure and Dynamics. Recent Research Developments in Lipids*. (2001), ed. Pandalai, S., Trivandrum: Transworld Research Network, 71-83, ISBN 81-86846-98-0
- 95) M. Beneš, J. Hudeček, P. Anzenbacher, & M. Hof. *Coumarine 6, Resorufin, Hypericine, and Flavins: Suitable Chromophores for Fluorescence Correlation Spectroscopy of Biological Molecules*. (2001), Collect. Czech. Chem. Comm. 66, 855-869.
- 96) H.-J. Egelhaaf, B. Lehr, M. Hof, A. Häfner, H. Fritz, F.W. Schneider, E. Bayer, & D. Oelkrug. *Solvation and Solvent Relaxation in Swellable Copolymers as studied by Time-resolved Fluorescence Spectroscopy*. (2000), J. Fluor. 10, 383-392.
- 97) M. Hof, P. Kapusta, V. Fidler, M. Nepraš, J. Urbanec, & R. Hutterer. *Fluorescent Dyes for Probing Solvent Relaxation in Biomembranes*. (2000), Latvian Journal of Physics and Technical Sciences 6, 183-187.
- 98) A. Haefner, F. Merola, G. Duportail, R. Hutterer, F.W. Schneider & M. Hof. *Calcium-induced Conformational Change of Factor X Fragment 1-86*. (2000), Biopolymers: Biospectroscopy 57, 226-234.



- 99) L.J. Ball, R. Kühne, P. Schmieder, B. Hoffmann, R. Volkmer-Engert, A. Häfner, M. Hof, M. Wahl, U. Walter, H. Oschkinat, & T. Jarchau. *Dual Epitope Recognition by the VASP EVHI Domain Modulates Polyproline Ligand Specificity and Binding Affinity*. (2000), EMBO J. 19, 4903-4914.
- 100) Hof, M. *Solvent Relaxation in Biomembranes. Applied Fluorescence in Chemistry, Biology and Medicine*. (1998), ed. Rettig, W.; Strehmel, B.; Schrader, S.; Seifert, H., Berlin: Springer, 439-456, ISBN 3-540-64451-2
- 101) Kapusta, P. - Fidler, V. - Nepraš, M. - Šoustek, P. - Hof, M. *Reactive Fluorescent N-triazinyl-1-aminopyrene Derivatives. Fluorescence Microscopy and Fluorescent Probes*. (1999), ed. Kotyk, A., Ústí nad Labem: Espero Publishing, 145-151, ISBN 80-238-4668-X.
- 102) R. Hutterer, A. Haefner, F. W. Schneider, & M. Hof. *Time-Resolved Analysis of Stokes-Shifts and Excimer Formation are Complementary Methods in Membrane Studies*. (1998), 'Fluorescence Microscopy and Fluorescence Probes, Vol. 2', ed. J. Slavik, Plenum Press, New York, 93-98.
- 103) M. Hof & R. Hutterer. *Solvent Relaxation of Fluorescent Labels as a New Tool for the Detection of Polarity and Rigidity Changes in Membranes*. (1998), Czech J. Phys. 48, 435-441.
- 104) R. Hutterer, A. Parusel, & M. Hof. *Solvent Relaxation of Prodan and Patman: A Useful Tool for the Determination of Polarity and Rigidity Changes in Membranes*. (1998), J. Fluor 8, 389-393.
- 105) M. Hof. *Picosecond Tryptophan Fluorescence: A Lipid Specific Conformational Change in the Gla-Domain of Prothrombin*. (1998), Biochim. Biophys. Acta 1388, 143-153.
- 106) R. Hutterer, F.W. Schneider, W.T. Hermens, R. Wagenvoord, & M. Hof. *Binding of Prothrombin and its Fragment 1 to Phospholipid Membranes Studied by the Solvent Relaxation Technique*. (1998), Biochim. Biophys. Acta 1414, 155-164.
- 107) H. M. Fuchs, M. Hof, V. Mudogo, & R. Lawaczeck. *Fluorescence Energy Transfer on Erythrocyte Membranes*. (1997), General Physiol. Biophys 16, 15-28.
- 108) H. Lanig, M. Hof, G. Bringmann, & F. W. Schneider. *Time Resolved Fluorescence Spectroscopy of Helically Distorted Systems*. (1997), Chem. Phys. Lett. 272, 478-483.
- 109) R. Hutterer, F. W. Schneider, & M. Hof. *Anisotropy and Lifetime Profiles for n-Anthroyloxy Fatty Acids: A Fluorescence Method for the Detection of Bilayer Interdigitation*. (1997), Chem. Phys. Lipids 86, 51-64.
- 110) R. Hutterer, K. Krämer, F. W. Schneider, & M. Hof. *The Localisation of the Local Anesthetic Tetracain in Phospholipid Vesicles: A Fluorescence Quenching and Resonance Energy Transfer Study*. (1997), Chem. Phys. Lipids 90, 11-23.
- 111) R. Hutterer, F. W. Schneider, H. Lanig, & M. Hof. *Solvent Relaxation Behaviour of n-Anthroyloxy Fatty Acids in PC-Vesicles and Paraffin Oil: A TRES Study*. (1997), Biochim. Biophys. Acta 1323, 195-207.
- 112) R. Hutterer, F. W. Schneider, & M. Hof. *Time-Resolved Emission Spectra and Anisotropy Profiles for Symmetric Diacyl- and Dietherphosphatidylcholines*. (1997), J. Fluor. 7, 27-33.
- 113) R. Hutterer, F. W. Schneider, V. Fidler, E. Grell, & M. Hof. *Time-Evolved Emission Spectra of Prodan and Patman in Large Unilamellar Vesicles: A Comparison between Ether- and Acyllipids*. (1997), J. Fluor. 7(1), 161-163.

- 114) M. Hof & P. Lianos. *Structural Studies of Thin AOT Films by Using the Polarity Fluorescent Probe Coumarin-153*. (1997), *Langmuir* 13, 290-94.
- 115) M. Hof, P. Lianos, & A. Laschewsky. *An Amphiphilic Hemicyanine Dye Employed as an Extremely Sensitive Probe of Water in Reverse AOT Micelles*. (1997), *Langmuir* 13, 2181-83.
- 116) R. Hutterer, F. W. Schneider, H. Sprinz, & M. Hof. *Binding and Relaxation Behaviour of Prodan and Patman in Phospholipid Vesicles: A Fluorescence and <sup>1</sup>H NMR Study*. (1996), *Biophys.Chem.* 61, 151-60.
- 117) R. Hutterer & M. Hof. *Binding of Prothrombin Fragment 1 to Phosphatidylserine Containing Vesicles: A Solvent Relaxation Study*. (1996), 'Fluorescence Microscopy and Fluorescence Probes, Vol. 1', ed. J. Slavik, Plenum Press, New York, 232-237.
- 118) M. Hof, S. Vajda, V. Fidler, & V. Karpenko. *Picosecond Tryptophan Fluorescence of Human Blood Serum Orosomucoid*. (1996), *Collect. Czech. Chem. Comm.* 61, 808-18.
- 119) M. Hof, G. R. Fleming, & V. Fidler. *Time-Resolved Fluorescence Study of a Calcium-Induced Conformational Change in Prothrombin Fragment 1*. (1996), *Proteins: Structure, Functions and Genetics* 24, 485-94.
- 120) M. Lanig, M. Hof, T. Stahl, & F. W. Schneider. *Intramolecular Deactivation of Substituted Quinolinium Cations. Time-Resolved Fluorescence and Semi-Empirical Calculations*. (1994), *Chem. Phys. Lett.* 220, 423-28.
- 121) M. Hof, R. Hutterer, N. Perez, H. Ruf, & F. W. Schneider. *Influence of Vesicle Curvature on Fluorescence Relaxation Kinetics of Fluorophores*. (1994), *Biophys. Chem.* 52, 165-72.
- 122) R. Hutterer, F. W. Schneider, N. Perez, H. Ruf, & M. Hof. *Influence of Lipid Composition and Membrane Curvature on Fluorescence and Solvent Relaxation Kinetics in Unilamellar Vesicles*. (1993), *J. Fluor.* 3, 257-59.
- 123) J. Schleicher, M. Hof, & F. W. Schneider. *Determination of Fractal Dimensions of Xerogels via Förster Energy Transfer*. (1993), *Ber. Bunsenges. Phys. Chem.* 97, 172-76.
- 124) K. H. Pearce, M. Hof, B. R. Lentz, & N. L. Thompson. *Comparison of the Membrane Binding Kinetics of Bovine Prothrombin and Its Fragment 1*. (1993), *J. Biol. Chem.* 268, 22984-91.
- 125) K. Brand, M. Hof, & F. W. Schneider. *Isotope Effect in the Time Resolved Fluorescence of Anthracene in Small Unilamellar Vesicles*. (1991), *Ber. Bunsenges. Phys. Chem.* 95, 1511-1514.
- 126) M. Hof, J. Schleicher, & F. W. Schneider. *Time Resolved Fluorescence in Doped Aerogels and Organosilicate Glasses*. (1989), *Ber. Bunsenges. Phys. Chem.* 93, 1377-1381.